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I.

OBSERVATIONS ON ASTHMA. BY
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UNTIL a change take place in the constitution of human nature, selfishness will always continue to be the most powerful, as well as the most prevailing principle in the minds of men. It is not in the least surprising, then, that the medical man generally devotes more of his attention to the disease from which he is himself a sufferer, than to any other; that he feels particularly interested about the elucidation of its nature, and the discovery of what would best act as its remedy. Influenced by a feeling of this kind, I have been for a considerable period of time engaged in the study of asthma, a disease with which I have been long afflicted; and as my case is rather an interesting one, I have resolved to lay it, together with a few general remarks upon the nature and treatment of the affection, before the profession. Should my doing so have any effect in procuring for the subject a greater degree of attention than it has for some years past received, I shall be quite satisfied with the success of my undertaking.

I was scarcely twelve years of age when I first experienced an attack of asthma. It was brought on by my having slept during the winter in a room which had been re-

cently erected, and the walls of which were still damp. Considered as a mere cold, which my constitution, otherwise healthy, would of itself shake off, it received but little attention; and no treatment, or at least none of an efficient character, was had recourse to for the space of between two and three years. At this period the disease became both more frequent and more violent in its attacks. Hurred and difficult respiration was the consequence of even moderate exertion; and the slightest change of temperature was sure to be very soon followed by symptoms threatening almost suffocation. Then it was that my state began to excite alarm in the minds of my friends, and that something like active remedies were employed. I was made to wear flannel next my skin; emetics and purgatives were administered; and blisters were repeatedly applied to my chest, the irritation being kept up during the intervals between them by means of heating and stimulant plaisters. This plan of treatment was followed up for a considerable time upon each recurrence of the disease; but it, instead of giving way, made rapid advances. I was often, for weeks together, obliged to pass the night in a chair, with my hands resting on a table which I had placed before me; and thus relieving respiration by calling in the aid

of the pectoral and other muscles, which assist secondarily in the performance of that function. Even while moving about during the day, I was compelled to have recourse to an expedient similar in principle to this : it consisted in resting a hand on each thigh. I was thus bent into a half-stooping position ; my shoulders were drawn forwards, and nearer to each other, and my condition was altogether truly miserable. There were still, however, intervals during which I was quite free from the affection ; and these I now began to improve by taking regular exercise, paying strict attention to diet, and guarding against whatever I had learned from experience to be favorable to the recurrence of the disease. By these means my general health became greatly better, and my asthmatic attacks both less frequent and shorter in duration. When they did come on, blood was taken from my arm by the advice of a physician whom I at this time consulted. At first the blood-letting afforded me relief, by subduing the more violent symptoms, but its effects became less beneficial at every repetition, and on the whole its operation was decidedly injurious, since it tended not only to prolong the present attack, but by inducing debility, to render me more liable to be affected in future by the exciting causes of the disease.

The introduction of two setons, one in each side, which were allowed to remain in for about twelve months, gave me some benefit, but certainly not so much as to compensate for the pain and inconvenience attendant on them. After the lapse of more than three years, one of these still continued, on the remission of an attack, to throw out a small quantity of matter.

The high eulogiums which had been at one time bestowed on *digitalis* as a remedy in asthma, induced me, although its reputation had then very much declined, to give it a trial. I commenced by taking ten drops of the tincture three times a-day. The advantage which I derived from its use was strikingly great. A few minutes after it was taken, the pulse became softer, more equable, and, I think, rather fuller than before ; the sense of constriction at the root of the trachea, as well as that of oppression over the chest, became mitigated ; respiration comparatively free and easy ; and instead of its former livid and bloated appearance, the countenance assumed in a great measure its natural complexion. In order, however, that these excellent effects should continue to be produced, I found it necessary gradually to increase the dose of the medicine from one quantity to another, till at last I took not less than six drachms in the twenty-four hours. It did not from the commencement produce nausea, vertigo, or a single unpleasant symptom of any kind. Many medical men to whom I have related this part of my case, have been inclined to think that the tincture which I used could not possess the ordinary strength, but on this point I could not possibly be mistaken, as it was prepared by myself, from leaves gathered by my own hands.

I once, for more than a year, used no animal food except milk and butter ; but this restriction was far from being advantageous to me. I suffered more from the disease during the last three or four months of that time than for any similar period, either before or after. Experience, indeed, has shown me that the diet of an asthmatic should

consist, not exclusively perhaps, but certainly in a great measure, of animal food.

For the last three years I have had only five attacks of the disease, and for the last twelvemonth not even one, although I have repeatedly during that time been exposed to the action of causes by which the affection scarcely ever before failed to be excited.

I consider my case, as above related, interesting in more than one point of view. In the first place, asthma does not often attack subjects so young as I was when I first experienced it, and when it does, its violence is very seldom so great.

Secondly, it shows that blisters, setons, &c. with which many medical men are so fond of torturing their patients, though undoubtedly capable of abating the severity of the symptoms, can by no means, however, radically cure the disease. It becomes a question, then, whether the good that they effect be sufficient to make amends for the sufferings which they produce. I have not the slightest hesitation in affirming the negative of this proposition: not that I do not think the *occasional* application of a blister, for the purpose of subduing existing inflammation, quite proper. It is the *frequent repetition* of them, after this object has been attained, with the view of preventing *future* attacks, or of eradicating the disease, which I condemn as, to say the best of it, an unavailing practice.

Thirdly, my case proves, as far almost as a single case can, the impropriety of having recourse to the lancet upon every fresh attack of the disease; but upon this point there is now scarcely any difference of opinion amongst medical men.

The last point to which I shall refer is one which claims considerable attention. It is the great benefit which was derived from the *digitalis*, and the large quantity of that medicine which was taken without the occurrence of a single unpleasant symptom. I have often since that time tried the medicine in other cases, though never to so great an extent; and I can confidently say that its virtues, as a remedy in asthma, entitle it to much more consideration than what it at present receives.

As a difference of opinion exists among the profession respecting the nature of asthma, and its *proximate cause*, I shall here briefly state the conclusions with respect to these subjects, to which a good deal of study and experience have brought me; and shall likewise offer some further observations upon the *treatment* of the disease.

Two theories of asthma have been proposed. According to one of these, it is a peculiar nervous affection, by which spasm of the *bronchiæ* is produced, and by which the respiratory muscles are rendered inadequate to a due performance of their office; while the other ascribes all the symptoms which asthma presents to an excessive effusion of mucus, by which the bronchial tubes are partially obstructed. Now the former of these theories, though supported by the high names of Willis, Hoffman, Hoyer, Cullen, &c., appears to me to throw no light whatever on the nature of the affection: in fact, so entirely ignorant are we of the manner in which the nerves perform their functions, that any attempt to explain the nature of a disease by referring it to a morbid condition of them, seldom serves any other purpose than to throw the subject into still greater

obscurity. The other theory, as proposed, and so ably supported by Dr. Bree, is certainly much more satisfactory ; but it must, while we grant this, be at the same time acknowledged that facts exist which prove incontrovertibly that excessive secretion of mucus cannot itself be the cause of the disease. In that species, for instance, which is denominated *dry asthma*, there is little or no expectoration ; and in the first stage even of the *moist*, the quantity of mucus thrown out by the vessels of the bronchiæ is deficient rather than excessive.

After seeing so many men of eminence fail in their efforts to explain the nature of asthma, I should certainly never have thought of prosecuting the inquiry myself, were it not for the intense interest which, from selfish considerations, the subject excited in me. I have reason, however, to think that the study which I have bestowed upon it has not been entirely fruitless. But I shall at once state the conclusions at which I have arrived, and leave the profession to decide as to their accuracy.

Asthma appears to me to consist, simply and solely, in inflammation of the mucous membrane lining the trachea and bronchial tubes. By this view of the disease, we will be enabled, I think, to account for the various symptoms which, in its different stages, it presents, in a manner more rational, and more satisfactory, than by any which has been previously taken of it. The sense of constriction at the lower part of the trachea, just where it begins to fork, the feeling of tension and oppression over the chest, as well as the general feverish state of the system, all indicate the existence of inflammation so plainly as to render it a matter of surprise that,

in forming their theories of asthma, authors should have almost entirely overlooked its inflammatory nature. The symptoms which show themselves as the disease proceeds, point, if possible, still more directly to inflammation as their cause. Thus the dry and parched state of the respiratory canal, the burning sensation which, in addition to that of constriction, is soon felt at the root of the trachea, the dull deep-seated pain which exists over the chest, are all together explicable in no other way than by supposing the mucous membrane of the trachea, and bronchial tubes, to be in a state of actual inflammation. The shrill wheezing noise which respiration now produces is owing to two causes, namely, to the unnaturally dry condition of the mucous membrane, and to its being considerably swelled and thickened, so as to render the canal narrower than it is in a healthy state.

The period during which the symptoms of which I have lastly been speaking make their appearance, may be considered as the second stage of the disease ; and comprehends that interval which exists between the time when the inflammatory action has become fully established, and that when it has reached its crisis. Soon after this happens, a very considerable change ensues. A copious secretion of mucus takes place ; the wheezing noise is not so shrill and so sonorous as before ; but respiration is much more difficult, owing, undoubtedly, to the air cells being partially obstructed with mucus, which at once refuses entrance to the ordinary quantity of air, and, by thickly coating the walls of the cells, prevents that which does enter from completely exercising its influence on the blood. The ef-

fects of this are soon visible in the excessive languor which ensues, as well as in the livid appearance of the countenance and the extremities. In such a state a patient could not exist long ; but fortunately a highly-beneficial change is on the very point of taking place. No sooner are the vessels of the mucous membrane relieved of their distention by the quantity of secretion which they have thrown out, than the respiratory muscles which, sympathetically affected by the inflammation, had become rigid and inactive, regain their vigor, and by forcible and frequently-repeated efforts, effect an expectoration of that secretion. In proportion as this is done, respiration becomes easier ; the blood undergoes more perfectly that change, whatever it is, which is so essential to life ; the skin loses its blue and livid color ; the patient feels relieved ; and his mind, previously depressed and desponding, becomes buoyant, active, and oftentimes cheerful to extravagance.

It almost universally happens, that whenever a person has been once affected with true asthma, such as that which I have described, he is subject during the rest of his life to a recurrence of it. This is one reason why the nervous system, by the aid of which the theorist always attempts to explain whatever he himself does not understand, has been so generally regarded as the seat of the disease. But it is well known, that when any organ has been once attacked by inflammation, there is created in it a disposition to inflammatory action, which becomes increased every time that such action is re-excited in it. If this be true, as every one must grant it to be with respect to the liver, the tonsils, &c., is there any cause why it should not be so

with respect to mucous membranes likewise ? I, for my part, am not acquainted with any. I perceive, on the contrary, the same truth to hold with respect to the mucous membrane lining the urinary canal ; and I cannot possibly see why the analogy should not extend to that which lines the respiratory.

In attempting to show how utterly inadequate to explain the nature of asthma the nervous theory is, I by no means intended to assert that the nerves are entirely unconcerned in the disease. What I meant to say is, that the nerves are not more affected in asthma than they are in any other inflammatory affection.

There is one circumstance which, at first view, may appear quite inexplicable, if asthma be considered as mere inflammation of the mucous membrane lining the bronchial tubes. The circumstance to which I allude is the comparative freedom in breathing which the asthmatic experiences during the day. How, it may be said, taking that view of the question which has been proposed, are we to account for such an intermission ? Does the inflammation, like the spirits of which we have heard so much in childhood, fly off as soon as the cock crows ? The objection certainly seems a powerful one ; but it loses its validity when we consider, that the changed state of the atmosphere during night is quite sufficient to account for the greater violence which the symptoms then assume.

Having seen that asthma is purely an inflammatory affection, it might be expected that general blood-letting ought to supersede every other remedial measure, at least in all cases where the patients are strong, and in other respects healthy. But if, relying on this expectation, a practitioner were to

use the lancet thus freely, his practice would turn out anything else than successful. Not that there may not occur cases in which, either from a very plethoric state of the patient, from unusual violence in the disease itself, or from its being complicated with some other inflammatory affection, general blood-letting may become necessary. But even in such cases, its utility consists solely in substituting for the evils to which the disease, if unchecked, would lead, other less ones of which it is itself the cause, namely, a more protracted recovery from the present attack, and a greater liability to a recurrence of the affection. Surely, then, general blood-letting should never be practised in asthma, unless when the urgency of the symptoms absolutely demands it. But the truth of this proposition by no means disproves the inflammatory nature of asthma. We know that in inflammation of the other mucous membranes patients usually bear the abstraction of blood very badly. This has been often observed with respect to the mucous membrane of the intestines. When it is inflamed, the loss of ten or twelve ounces of blood will produce fainting in a patient, who, if the serous membrane were the seat of the inflammation, would bear to lose twenty or twenty-five ounces, without being much affected. Of the cause of this difference we are totally ignorant. The fact itself, however, is sufficient for my purpose.

Although but very few cases of asthma require general blood-letting, or are benefited by it, yet there is scarcely one in which great advantage may not be derived from the abstraction of blood locally. A number of leeches applied under each clavicle, as well as above the

sternum, will most frequently be productive of speedy and extensive relief. Fomenting the throat too ; or, what is still better, inhaling the steam arising from a mixture of hot water and vinegar, has a most excellent effect in soothing the irritability of the mucous membrane, relaxing the tension produced by the fulness of its vessels, and either subduing the inflammation entirely, or bringing it sooner to a crisis. Of the inhalation of iodine, oxygen, &c. I can say nothing from experience.

Emetics, I believe, are seldom useful, and never requisite in asthma. Indeed, in most of the affections in which they are, or used to be employed, their operation is anything but advantageous. The unnatural action which they induce in the stomach, and in the upper portion of the intestines, generally leaves behind it a weakness and want of tone, which are by no means easily remedied. I have often heard a patient complain, six or eight weeks after he has taken an emetic, that, ever since that time, he has been distressed with a sinking sensation of the stomach ; that his appetite has been bad ; and that his bowels have been very much deranged, being now excessively purged, and at another time obstinately costive ; and, on looking at his tongue, I have found it covered with a dirty, clammy fur, of unusual thickness. When, therefore, there exists in asthma, as there generally does, a disordered state of the stomach and bowels, a simple saline purgative or two will be found of much more advantage than an emetic. Indeed, in the case of young patients, I have not unfrequently seen an attack of the disease completely arrested by the administration of rather a large dose

of sulphate of magnesia, or of Glauber's salt.

After what I have said in the relation of my case respecting the good effects of the *digitalis*, it is quite unnecessary for me to recommend it here. On the use of antimonials, Dover's powder, &c. in asthma, as nauseating and diaphoretic medicines, I shall say nothing; as their utility in inflammatory affections of every kind is well known, and almost universally acknowledged.

Not many years since it was the common practice to administer in asthma a number of medicines, which, from their antispasmodic qualities, were considered highly beneficial in that disease. This practice, the offspring of a most erroneous theory, has now fallen into pretty general disuse; for experience has shown, that such medicines, by their stimulant powers, only aggravate the symptoms. There is, however, one species of the disease in which they are probably useful. The species to which I allude is that which is usually denominated *dry*, but which might very properly be termed *chronic asthma*. It is most frequently met with in persons advanced in life, many of whom were, in early years, sufferers from the more acute form of the disease. Its symptoms are comparatively mild, but it very seldom has anything like perfect remissions. It is often relieved by *galbanum*, *assafetida*, or *ammoniacum*.

I have never, I regret to say, had an opportunity of examining after death the bodies of asthmatics. I have, therefore, in the above observations, referred solely to the symptoms during life for proofs of the correctness of my opinions. The further evidence in their favor,

which may be drawn from the *exciting causes* of the affection, is so likely to obtain due estimation from all who turn their thoughts to the subject, that I have thought it unnecessary to insist upon it.*

II.

OBSERVATIONS ON DROPSY. BY
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MAN in a rude and unpolished state, deprived of all the luxuries of life, and scarcely able to obtain a comfortable existence, whose intellectual faculties are uncultivated, and exert comparatively little influence over the physical energies of the system, is, as far as I have been able to ascertain, almost entirely exempt from dropsical affections. But when we take a view of him in a state of civilization the scene is reversed. Being tenderly raised and subject to the wrecking influence of inordinate repletion, stimulating potations, inactivity of body, mental excitement, and other causes of a local and accidental nature, he is rendered obnoxious to this and many other diseases of a complicated character, for the removal or palliation of which many remedies are required, and great skill in their administration called for.

Although the subject of this paper has received much attention, and physicians of the greatest respectability have been engaged in its investigation; and although much benefit has resulted to the unfortunate victims of this disease, by their unwearied exertions, something more yet remains to be done in order to enable them to treat successfully all its aggravated forms. In some of these publications; the

* London Medical Gazette.

treatment of this disease is detailed in a manner calculated to inspire great confidence ; but when resorted to in a complicated case, it fails, and but too often under the joint influence of all the remedies recommended, it progresses regularly to a fatal termination.

Some writers suppose dropsy to be hereditary ; and it certainly as well deserves this appellation as most other diseases ; persons of a phlegmatic temperament being most liable when placed under the circumstances producing it. As exciting causes, have been enumerated every circumstance calculated in any way to produce a feebleness of constitution. But I am disposed to doubt the correctness of this opinion ; having never seen a case of ascites, or general anasarca, in which considerable chylopoietic derangement did not exist : one or more of the vital organs having refused obedience to the laws by which they are governed in a healthy state. Moreover, the well-known effects of intemperance, and neglected or mal-treated febrile diseases—the most fruitful causes of dropsy—should in my humble opinion be sufficient to convince every one at all conversant with the subject, that a case of idiopathic dropsy rarely occurs.

Almost every case which has come under my notice, could be proved satisfactorily to have depended on one or all of the causes above mentioned ; all of which produce an unsoundness of the digestive organs, by which the fluids are vitiated, the system badly nourished, and the circulation disturbed.

In the section of the country where I lately resided, intermittent fever prevailed extensively, during the summer and autumnal months ; and almost every person of a phleg-

matic temperament, who suffered the disease to take its course uncontrolled, was afflicted with ascites, or anasarca, or both. Great enlargement and induration of the spleen, with pain in that region, more particularly whilst exercising, were invariable concomitants. Occasionally a sense of fulness in the right hypochondriac region, and sometimes pain, extending into the right shoulder, attended, with want of appetite and other symptoms of gastric derangement.

The *modus operandi* of constitutional derangement in producing the diseases under consideration, is yet a matter of doubt. A want of balance does certainly exist between the absorbent and exhalant systems ; but whether it is owing to an increased action in the exhalants, or to a torpidity of the absorbents, or both ; or how the local determinations above mentioned produce the disease in some, although not predisposed, whilst others, similarly situated, escape, are questions which necessarily arise. It is enough for us to know that they are symptomatic diseases. To treat them successfully, the loss of balance from which the effects, ascites and anasarca, arise, must be corrected before the disease can be permanently removed. If some organ or organs are in a state of chronic inflammation, or of slight enlargement, with attendant functional derangement, our treatment should be directed accordingly, whilst at the same time we use the necessary means to remove the effects already produced. If we are successful in removing the cause and effects, by the same, or a combination of remedies, disease no longer exists.

Persons of a phlegmatic temperament appear to be most liable to enlarged states of the abdominal

organs, which is probably owing, in some degree, to the relaxed condition of the vascular system, yielding to the unequal distribution of blood, which takes place in febrile diseases. In such cases, after the operation of cathartics, and the removal of the water, chalybeates are highly serviceable.

Being frequently unsuccessful with the common remedies employed in this disease, and supposing this want of success depended on the treatment being directed to remove a symptom rather than the disease itself; knowing, moreover, the inefficacy of most of the remedies used in removing the cause, and being fully convinced that calomel in large doses possessed properties combined in no other article, to whose pervading influence every tissue of the human system yields submissively, and acknowledges its control,—to it alone we look with confidence for the adjustment of that lost balance, and for the restoration of that harmony of action, which in each, and every part, or sub-system, is so essential to the well-being of the whole. I supposed, moreover, that if an active diuretic could be combined with it, and administered in such a manner that the functional derangement could be corrected, and the fluid discharged, before ptyalism was produced, that we would be in possession of a remedy to which we might resort with great confidence of success, in the most aggravated forms of dropsy.

Under these views the first case which presented was ascites, with œdema of the lower extremities, with no external marks of inflammation; an enlargement of the spleen with gastric derangement attended. It succeeded an attack of intermittent fever. Fifteen grains

of calomel and four of squills were administered three times a day, which operated seven or eight times, daily, as a cathartic, producing bilious passages; and in seventy-two hours from the administration of the first dose, the hydropic collection was entirely removed, by the powerful diuretic and purgative effects of the compound. The carbonate of iron freely administered, combined with aromatics, prevented a relapse, and the recovery was rapid.

Being encouraged by the happy termination of the case above mentioned, the same remedies were administered subsequently with equally good effects. And in every trial which was made I was more convinced of their superior efficacy over every other plan of treatment recommended in such cases.

In cases where an inflammatory diathesis existed, relief was generally afforded by the calomel and squill as above directed, it having been rarely necessary to use more active depletory measures. Relapses, however, frequently occurred, and it was found necessary to resort to the medicines frequently, to give relief, and to correct the local affections which remained. During the intervals, counter irritants, laxatives, and the tinct. sanguinariae canadensis, were found beneficial. The last is a medicine which deserves more attention than it has received from the profession. My attention was particularly directed to its use by the recommendation given it by an eminent practitioner who considered it superior to every other remedy in diseases of the liver and spleen, calomel not excepted, and also by the frequent use made of it by the country people for the cure of intermittent fever, and enlarged

spleen, which they call ague-cake.

Although I do not entertain so high an opinion of its virtues as the physician spoken of above, I know no remedy better calculated to relieve a patient with œdema of the lower extremities, and an enlargement of the spleen, than the saturated tincture of sanguinaria given in as large doses as the stomach will bear, three times a day; 3i. is a suitable dose for most persons.

The quantities of calomel and squills, above recommended, will not always have the desired effect upon the bowels. If they fail to operate seven or eight times in twenty-four hours, the quantity should be increased—if they are too active, diminished—which, however, will seldom be found necessary. Active purgation seems greatly to enhance the diuretic properties of the compound. Some persons may suppose that the stomach would not retain the doses of squill recommended. In all the trials made with it, I have never seen it rejected. Even in five grain doses, it nauseates very little. Perhaps in the form of pills would be the most agreeable way to administer it.

It certainly would be an extravagant, and also an unwarrantable assertion, if I were to say that this, or any other plan of treatment, will always be successful. But I do think that it is by far the most successful mode of treating ascites and anasarca. It is much more prompt and certain in its operation than the same medicines used in the common way; which if continued long without giving relief, as is often the case, generally salivates, an effect which I have never seen produced by the large doses of calomel recommended. When ptyalism does

take place, it is injurious, because it prevents the continued use of the medicine without conferring any benefit whatever, never having seen any advantage obtained by salivating a patient in dropsy before the evacuation of the water.

Some practitioners use hydragogue cathartics daily, until relief is obtained, which probably will require ten or twelve active cathartics, and by their use the patient is so much exhausted, that a relapse almost invariably takes place, although tonics may be freely administered. The digitalis, as it is frequently found in the shops, is so insignificant a remedy, that it scarcely deserves notice. Having had but one case of hydrothorax, and that in the advanced stage, in the person of a sot, who had made a business of drinking spirituous liquors for twenty or thirty years, I am not able to say whether the same success would attend this plan of treatment in that form of dropsy as in ascites and anasarca.

The squill that was used was dried in an iron mortar, placed near the fire, pulverized and confined closely in phials.*

III.

TALIACOTIAN OPERATION FOR RESTORATION OF THE UNDER LIP. BY C. BRYCE, M.D.

IN July last the Hakim-Bashi sent me, at Constantinople, the following singular case of destruction, by mortification, of the under lip and chin, which, from the success following the treatment pursued, seems worthy of notice.

The subject of it, a Turkish child, three years old, was attacked, in June preceding, with scarlet

* Transylvania Medical Journal.

fever, that spread sparingly over the body, and in which the mouth and throat were aphthous, but not ulcerated, disappearing by the use of a wine gargle and laxatives. The subsequent affection of the mouth was preceded by much fever and restlessness, and appeared in a small pustule on the left commissure of the mouth, which became rapidly black, and opened, discharging an offensive sanies; the gums at the same time were discolored, and bled on the child's crying. The sore formed on the outside of the mouth spread quickly downward and laterally; and on the seventh day of the disease, when the patient was first brought to me, the whole of the under lip and chin presented a fetid, black, irregular-shaped slough, surrounded by a broad dark-colored line of inflammation, marking the threatened progress of the disease on the integuments, the left cheek, and upper lip, which were painful and hard. The incisors of the lower jaw were loose, their gums and alveoli partaking of the affection, and by contact involving the lip and anterior edges of the tongue. The tongue was œdematous and loaded, but the fauces showed no appearance of unhealthiness. The countenance had a peculiar livid color; body dry and hot; pulse small and rapid; diarrhœa.

From certain circumstances, an emollient poultice to the sore, and frequent ablutions of the mouth, and a few drops of laudanum internally, were all that could be recommended at this period. On the third day's visit, and tenth of the disease, observing the rapid progressive destruction of the integuments, the gangrenous parts were touched with diluted nitric acid, and sulphate of quinia with opium were exhibited. This external treatment, twice re-

peated in thirty-six hours, did not in any measure arrest the spreading of the mortification, which had now involved an inch and a half in circumference of the left cheek and upper lip, and extended downwards under the chin. The diarrhœa was checked, and the child had enjoyed some hours of sleep, but was evidently sinking. It was now determined on to apply a fermenting poultice over the diseased parts, and to administer pills composed of quinine, camphor, and hyoscyamus, in large doses, and allow 8 oz. of porter daily. This plan, after forty-eight hours' continuance, showed a marked improvement in the patient: the mortification had made no further progress for the last eighteen hours; the slough was partially detached; whilst the look of the child was improved, with a slower and fuller pulse. The poultice and porter were continued as before, as were the pills, reduced in strength. In a few days the slough was totally separated, leaving a florid granulating surface. The integuments had assumed their natural color and feel; four incisors and two canine teeth, with fragments of alveoli, were removed, as were also three small exfoliations from the under maxillary bone. The tongue had thrown off its slough, and appeared healthy.

The only treatment practicable for the moment, was to encourage granulations by spirituous applications, and support and diminish the loss of substance by compresses and bandages, whilst the general health of the child was improved by liberal diet and change of air. In six weeks a healthy cicatrix had formed, and the breach of continuity was much lessened by its contractions. It was now very evident that a complete, or even partial,

reparation of the great destruction of the soft parts, could be promised only by an operation, the necessity for which arose as much from the disagreeable deformity of the face as from the evident ill effects on the system that the constant flow of saliva occasioned. The writer was encouraged to this attempt by the very perfect success of a Taliacotian nose, made a short time before by him at Constantinople. The operation, in which he was assisted by the advice and skill of his intelligent friend Mr. Millingen, was performed by removing from the upper part of the throat a triangular portion of integuments, whose suitable form and size had been judged of, by measuring a model of the lip and chin adapted to the deficiency. This segment was now reflected, the twist being made immediately on the point of the chin, and its two angular points attached by ligatures to the commissures of the mouth, previously made bare by scarifications, as was also the whole of the former cicatrized surface. The flap was further supported by adhesive plaster and bandage, and the wound on the throat brought together by the same means. The parents were directed to keep the child in a recumbent posture, and to feed her sparingly on pap. The wound was looked at on the third day;—on the fifth the dressings were changed, when adhesion had taken place on one side very completely, and on the other, although the ligatures had cut through, there was no opening of the wound: there existed no symptoms of excessive inflammation of the parts, or of irritation of the system. In fifteen days the cicatrices were perfectly formed, and the wound on the throat almost closed. On closing the mouth,

the artificial lip seemed very well adapted to the other, and even when partially opened retained the saliva, and very materially diminished the unseemliness of features. It cannot be yet determined whether or not the second set of teeth, with their alveoli, have been so much destroyed as to prevent the great help derivable from their growth, by supporting the flaccid flap. On the whole, the result of the operation was very satisfactory, especially at Constantinople, by exalting the practice and utility of surgery amongst the Turks, and encouraging them to submit to operations beyond the barber's province of bleeding and tooth-drawing.—*Glasgow Med. Journ.*

MEDICAL JOURNAL.

BOSTON, AUGUST 23, 1831.

RABIES.

THE cry of mad dog seems in a good measure to have ceased. The war against the canine race, which threatened to be a war of extermination, has given place, if not to a peace, at least to a cessation of hostilities; and such of these quadrupeds as deport themselves with decency, are now likely to be left in the unmolested enjoyment of their lives and liberty. Hydrophobia no longer haunts the imagination of the timid, or exercises the ingenuity of the wise; neither supplies the press with its horrors, or the social circle with its prevalent topic. Yet it cannot be supposed that a subject lately regarded with so intense an interest, should be viewed with entire indifference. There are very few diseases which

assail mankind, more mysterious in their origin, more rapid in their progress, more fatal in their termination; and there are few, we are persuaded, about which curiosity is so much called forth and so imperfectly satisfied. We propose, therefore, at the risk of being tedious to our more scientific readers, to consider some of those questions in regard to canine rabies which most frequently arise in conversing on the subject, and to which the ordinary sources of information do not furnish complete or satisfactory answers.

1. How long has hydrophobia existed?—Some authors assign to this disease a very high antiquity. Sprengel, the learned professor at Hallé, refers it back to the period in which the fables of the Greeks had their origin. He thinks the tradition of Actæon devoured by his own dogs ought to be explained by a reference to this disease. However this may be, no description of hydrophobia appears in Hippocrates. Aristotle, who flourished later, says expressly that animals are liable to be attacked with madness, but that men who are bitten by them are not affected with any specific disease. According to Plutarch, however, it began to show itself in man about the time of Alexander. Celsus furnishes a very animated and accurate account of its symptoms, and at a later period it is mentioned by Dioscorides, by Pliny the elder, by Galen, and Cælius Aurelianus. The last author is, of all the ancients, the one who has furnished most details on this interesting subject.

2. What animals are subject to

rabies, and what are the laws which regulate its propagation?—The only animals which are certainly known to develop spontaneously signs of rabies, are dogs, wolves, foxes and cats. This list has by some authors been greatly extended, and made to include cows, pigs, horses, and even man. On the whole, however, the weight of authority is decidedly in favor of the restriction just mentioned.

In regard to its propagation, it cannot be questioned that the above animals are capable of communicating it to those of their own species, to other quadrupeds, and to man. On this point there is no diversity of opinion. It seems highly probable, also, from experiments which have been made on the subject, that birds will receive it by inoculation.

On the other hand, as far as can be learned from observation, or has been ascertained from experiment, other species of animals than those above mentioned are not capable of communicating rabies. Experiments made with the saliva of rabid sheep and cows have shown that it was innocuous when applied to wounds in other animals; and where the disease has attacked sheep, it has not been observed to spread from one to another in the same flock.

Can hydrophobia be communicated by man?—We believe there is no well-authenticated instance on record, in which an individual affected with this disease has communicated it to any of the attendants. The apprehension which is often felt on this score seems to be without foundation; and the more so, as it is very

rare that any disposition is manifested by rabid patients to injure others. We are indeed told of instances in which hydrophobic persons have warned their friends to keep at a distance, lest they should do them injury during the paroxysm by biting. But this would only prove that a prejudice of this sort is very common, and that it has extended itself to those suffering with the disease, as well as to others. The experiment has frequently been tried, whether by inoculating animals with saliva taken from rabid patients the disease could be given to animals. Of these experiments, very carefully performed by the most eminent pathologists, only one was attended with any positive result. In this, which took place at the Hotel Dieu, in Paris, in the year 1813, a piece of linen was moistened with the saliva of a man affected with hydrophobia, a few hours only before his death. Two dogs, previously in good health, were inoculated immediately. One of them became mad five weeks afterward, and bit another, which also run mad. This fact, which is extremely well authenticated, includes all the testimony we possess in favor of the communication of rabies by the human subject.

3. Can rabies be conveyed by the bite of an animal not itself rabid?—It is easy to conceive, *à priori*, that other causes, independently of the existence of madness, might so modify the secretions of an animal as to make it capable of communicating this disease; and it has accordingly been asserted that animals, and even men, when affected with diseases

simply enraged, have been known to produce rabies by biting. Neither are facts wanting, either in the records of early or later times, to confirm this idea. Malpighi mentions the death of his mother, who became rabid from being bitten by her daughter in a fit of epilepsy; and in the *Ephemerides Curiosorum* it is related that a man, who had bitten off one of his own fingers in a transport of rage, had symptoms of madness the next day, and died soon after. But notwithstanding these and some other marvellous stories, we must acknowledge that the occurrence of rabies from this cause is very unlikely. If a bite from an enraged animal were a sufficient cause of rabies, instances could scarcely fail to come under our daily observation, in which dogs, bitten by each other in the streets, or men or children, wounded by domestic animals with whom they had imprudently played too roughly, would exhibit the disease; and the extreme rarity, or rather entire absence of such cases, makes the supposition itself extremely improbable.

4. What are the remote causes of canine rabies, and the circumstances which particularly favor its production?—Various attempts have been made to determine the question in what manner this disease is influenced by varieties of climate and season. These have however been hitherto attended with very limited success, and the facts which are known lead to no certain result. It has been supposed that great and continued heat was favorable to the production of rabies; and according to this notion it ought to be most prevalent in

tropical countries. But this supposition is contradicted by so many facts, related on the authority of residents in these climates, as to be wholly untenable. Syria, Egypt, the Cape of Good Hope, and the West Indies, are among those countries most exempted from this disease. It is equally impossible to adduce any sufficient evidence that extreme and continued cold is peculiarly favorable to its production, since neither in the higher latitudes of Europe nor of this country is it more prevalent than in temperate regions.

As respects the influence of season, there is nearly equal uncertainty. We are indeed accustomed to regard it as a disease of hot weather, and the limited observations made among us serve to confirm this idea. In other countries, however, and particularly in France, where accurate observations have been made for a series of years, the variation in the degree of the disease at different seasons by no means corresponds to this supposition. It even appears from these observations that in the month of January, which is the coldest in the year, and that of August, the warmest, the cases of rabies are less frequent than in any other months in the year.

Of the other remote causes which have been assigned as capable of producing the disease in dogs, it will be sufficient to mention hunger, thirst, and the bad quality of food. That these causes have a tendency to produce madness, is at least a very common impression. Even this, however, is not sustained by facts.

Dogs suffer much from thirst in hot countries without becoming mad. Nor is this all. The experiment has been tried of confining these animals from food and water, and subjecting them to the most putrid exhalations, yet without producing in any instance a symptom of madness. We are obliged therefore to come to the conclusion, that the remote causes which give rise to canine rabies are nearly or quite unknown.

COMPRESSION IN DROPSY.

M. GOZELLE, of Soissons, has published, in the *Revue Medicale*, some cases of abdominal dropsy, in which the steady employment of compression proved completely successful. The mechanical arrangement employed, consisted merely of a broad band, made to pass round the abdomen, and gradually tightened as the reduction of size admitted. The symptom at first apprehended, namely, disturbance in the respiration from the increased pressure of the fluid on the diaphragm, did not take place. The cure was nearly independent of other remedies, and appeared to be complete.

Antidote to the Nitrate of Silver.—It may not be very generally known that the muriate of soda—common salt—is an antidote to the nitrate of silver, effectually decomposing it, and giving rise to the formation of a chlorate of silver.

Season of Green Fruit.—The deaths in Philadelphia last week amounted to the number of 116, including *thirty* children by cholera.

The *unity* which will be remarked in our bill of mortality, is

a sufficiently clear indication of the large share of health now enjoyed in Boston. For the season it is uncommon.—The rumor that a recent and sudden death at the South End was occasioned by the Indian Cholera, we are authorized by the attending physician in the case to say is wholly without foundation. Many false reports of this kind will doubtless arise, from the vague manner in which the single term *Cholera* is used

to signify bilious cholera, the cholera of infants, and some other disorders of the stomach and bowels not uncommon in hot seasons.

Whole number of deaths in Boston the week ending Aug. 12th, 21. Males, 12—Females, 9.

Of dropsy, 1—dropsy on the brain, 2—inflammation in the bowels, 2—lung fever, 1—consumption 3—accidental, 1—convulsions, 1—dysentery, 1—spasm, 1—croup, 1—rupture, 1—cholera, 1—intemperance, 1—fever, 1—cramp, 1—bilious colic, 1—unknown, 1.

ADVERTISEMENTS.

BERKSHIRE MEDICAL INSTITUTION.

THE Annual Course of Lectures, in this Institution, will commence on the first Thursday of September, and continue fourteen weeks. The Trustees have made ample provision for the accommodation of students. The addition of a Demonstrator of Anatomy will afford great facilities for the acquisition of knowledge in that important branch of Medical Science. The expense of the whole course will not be increased. Medical Degrees are conferred at the close of the Lectures in December, and at the annual Commencement of Williams College, with which this Institution is connected. The examination for medical degrees begins on the Wednesday preceding the close of the Lecture Term.

H. H. CHILDS, M.D., *Professor of Theory and Practice of Medicine.*

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Board, including washing, lodging, and room, \$ 1.75 a week.

Aug. 23—4t.

MEDICAL SCHOOL IN BOSTON.

THE MEDICAL LECTURES OF HARVARD UNIVERSITY delivered in Boston will be commenced in the Autumn, at the usual period, viz., on the *third Wednesday in October*. They will be continued four months.

This extension in the term of the Lectures has been thought necessary to afford time for such a course of instruction and demonstration, as is deemed by the Faculty to be requisite, under the advantages which have recently accrued to the School.

The Legislature of Massachusetts, with an enlightened liberality, which does honor to our age and country, have extended the protection of law to the cultivation of Anatomy within this Commonwealth. The advantages which will hence result to students resorting to this school will be sufficiently obvious. It will be the aim of the Professors to carry into effect the intentions of the Legislature, in such a manner as to evince at the same time their respect for the rights of humanity, and their interest in the promotion of the healing art.

The opportunities for practical instruction at the Massachusetts General Hospital continue undiminished.

The Courses of Lectures will be,

On Anatomy and Surgery, by Dr. WARREN.

On Chemistry, by Dr. WEBSTER.

On Materia Medica, by Dr. BIGELOW.

On Obstetrics and Medical Jurisprudence, by Dr. CHANNING.

On Theory and Practice of Physic and on Clinical Medicine, by Dr. JACKSON.

WALTER CHANNING, Dean of the Faculty of Medicine.

Boston, June 15, 1831.

July 19. * 6t.

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